# AL260-EVB-A5
# Evaluate Board
## User Manual
## Version 1.1

I INFORMATION FURNISHED BY AVERLOGIC IS BELIEVED TO BE ACCURATE AND RELIABLE. HOWEVER, NO RESPONSIBILITY IS ASSUMED BY AVERLOGIC FOR ITS USE, OR FOR ANY INFRINGEMENTS OF PATENTS, OR OTHER RIGHTS OF THIRD PARTIES THAT MAY RESULT FROM ITS USE. NO LICENSE IS GRANTED BY IMPLICATION OR OTHERWISE UNDER ANY PATENT OR PATENT RIGHTS OF AVERLOGIC.

Document Number: 1-M-PAE360-0012

©2004-2006 Copyright by AverLogic Technologies, Corp.

# Amendments

| | |
|---|---|
| 2006.06.16 | version 1.0 |
| 2006.07.05 | version 1.1<br>1. Update menu display.<br>2. Update document format. |

©2004-2006 Copyright by AverLogic Technologies, Corp.

# TABLE OF CONTENTS

1. Introduction ..... 1
1.1. Introduction ..... 1
1.2. Product Overview ..... 1
2. Hardware Section ..... 3
2.1 I\O Port Descriptions ..... 3
2.2 Block Diagram ..... 3
2.3 Key setting ..... 4
2.4 Menu Display Descriptions ..... 5
2.5 Remote Controller Setting ..... 6
2.6 Rear Board Interface Descriptions ..... 8

©2004-2006 Copyright by AverLogic Technologies, Corp.

# 1. Introduction

## 1.1. Introduction

AL260 is a highly integration Video Enhancement Processor which supports video input with multiple video formats then output with De-interlacing and Scaling effects .It can be used for most video conversion and processing applications.

Al260 is equipped with a high quality scaling engine that automatically maintains full screen output display, regardless of resolution of the incoming signals. Applying Averlogic's proprietary scaling algorithm, the primary input video can be scaled up and scaled down independently in horizontal &vertical directions. It also provided film detection, advanced de-interlacing, filtering, and scaling which's able to convert and process the interlaced video to be displayed on progressive panels.

AL260 is built-in 3-channel DAC for non-interlaced analog output and also 24bit digital output.

It is housed witch 208-pin QFP package.

## 1.2. Product Overview

- Non-interlaced RGB output, applies to CRT and LCD MONITOR (analog output).
- Support PAL /D/K, PAL /I and NTSC TV standard, be able to receive CATV and radio vision program, receive full supplementation television, receive channel scope: DS1-57CH, Z1-38CH (870Mhz full channel TV channel). For NTSC tuner, it can receive USA Standard Analog Cable TV channel 2-- channel 136.
- Preset programmable channel: most for 100 channels (according to the size of EEPROM, the maximum is 255).
- Video input (include AV & S-video) support PAL, NTSC, PAL-M, PAL-N, NTSC-443, SECAM..
- Full function for remote controller.
- Simplified Chinese and English OSD display.
- OSD background mode adjusts (NOP, OR, AND, XOR).
- Support TV/EXTERNAL VGA switch.
- Power saving mode at VGA input.
- Audio input channel switch and volume control.
- Output resolution :
  800×600@60Hz,
  800×600@75 Hz,
  800×600@85 Hz,
  1024×768@60Hz
  1024×768@75Hz
  1280×1024@60Hz.
- Motion compensation adjusts.

©2004-2006 Copyright by AverLogic Technologies, Corp. 

- Output resolution adjusts.
- RF matching impedance: 75Ω;
- Power consume: <=8W

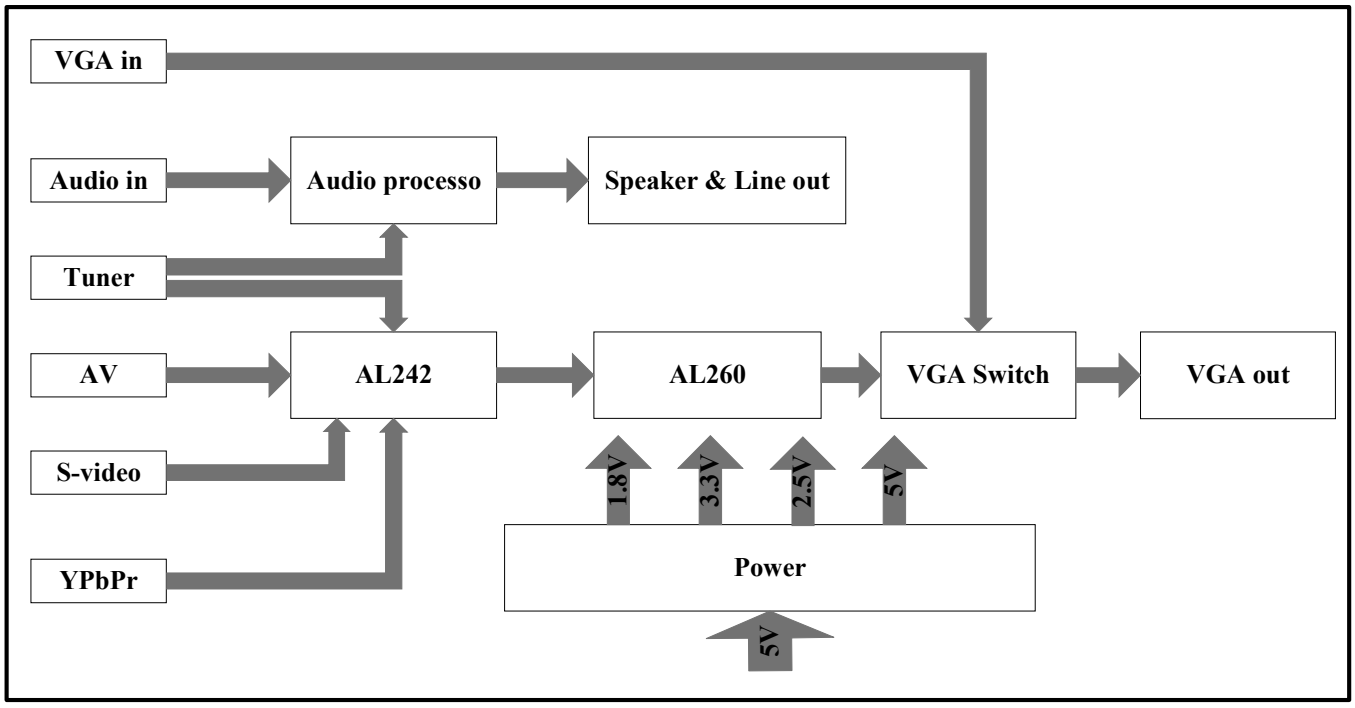
©2004-2006 Copyright by AverLogic Technologies, Corp. 

# 2. Hardware Section

## 2.1 I\O Port Descriptions

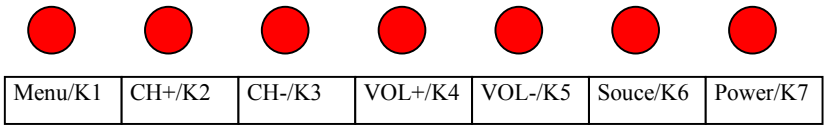
- Power: 5V DC power input port (recommended type current more than 1.5A).
- VGA IN: VGA signal input port
- AV IN: CVBS video signal input port, which connects to VCD/DVD, video camera etc. peripheral equipment.
- S-VDIEO: Y/C signals.
- AUDIO IN: Audio input port.
- VGA OUT: VGA output port. Connect to monitor.
- AUDIO OUT: Audio output port.
- ANT/CABLE: TV RF signal input port, TV antenna/CATV input port.
- KEY CONNECTOR: Keyboard control interface.

## 2.2 Block Diagram




©2004-2006 Copyright by AverLogic Technologies, Corp. 

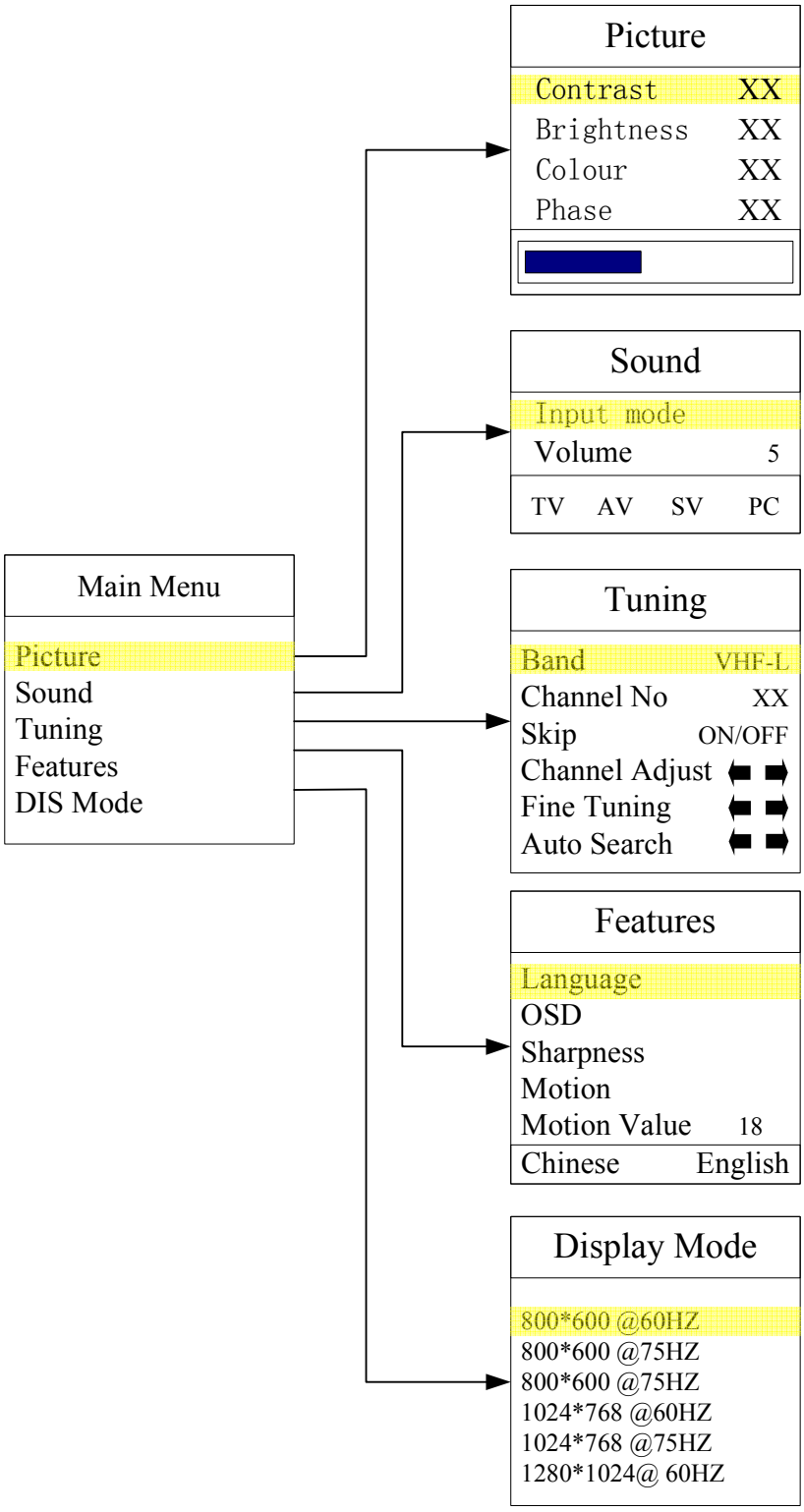
## 2.3 Key setting




| KEY | FUNCTION | DESCRIPTIONS |
|---|---|---|
| K1 | MENU | Enter/Exit, enter the first level menu while the first press this key, enter the second level menu while the second press, exit the menu while the third press |
| K2 | CH+/INC | The selector marker shift upwards while press this key when the menu displays, otherwise (just TV input) channel increase while press. |
| K3 | CH-/DEC | The selector marker shift downwards while press this key when the menu displays, otherwise(just TV input) channel decrease while press. |
| K4 | VOL+ | Volume control increase while press this key when the menu doesn't display, otherwise it is increase or selection. |
| K5 | VOL- | Volume control decrease while press this key when the menu doesn't display, otherwise it is decrease or selection. |
| K6 | Source | Input video source select. |
| K7 | Power | Start/Stop. |
| **COMPOUND KEYS：** | | |
| K1K2K4 | Reset | Reset the TV BOX while press these keys simultaneously. |

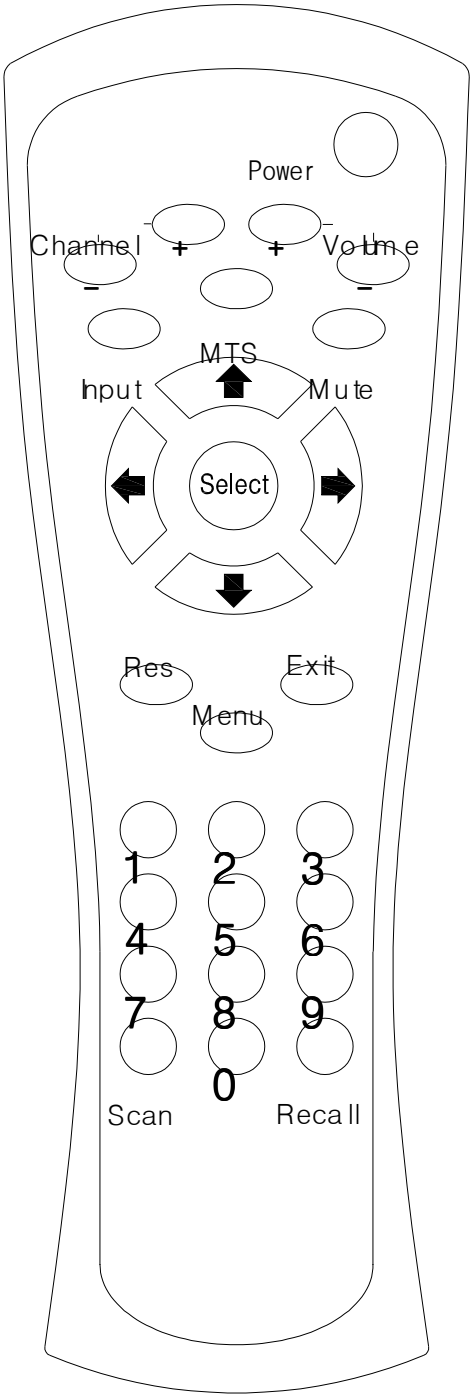
©2004-2006 Copyright by AverLogic Technologies, Corp. 

## 2.4 Menu Display Descriptions




©2004-2006 Copyright by AverLogic Technologies, Corp. 

## 2.5 Remote Controller Setting




©2004-2006 Copyright by AverLogic Technologies, Corp. 

**Key Descriptions:**

1) Power: Start/Stop.
2) Ch+/Inc: The selector marker shift upwards while press this key when the menu displays, otherwise (just TV input) channel increase while press.
3) Ch-/Dec: The selector marker shift downwards while press this key when the menu displays, otherwise (just TV input) channel decrease while press.
4) Menu: Enter menu.
5) Exit: Exit menu.
6) Select: Select a menu item.
7) Vol+: Volume control increases while press this key when the menu doesn't display, otherwise it is increase or selection.
8) Vol-: Volume control decreases while press this key when the menu doesn't display, otherwise it is decrease or selection.

**Ps: Hereinbefore 7 key correspond with the 7 key in TV BOX, but it have not compound key feature.**

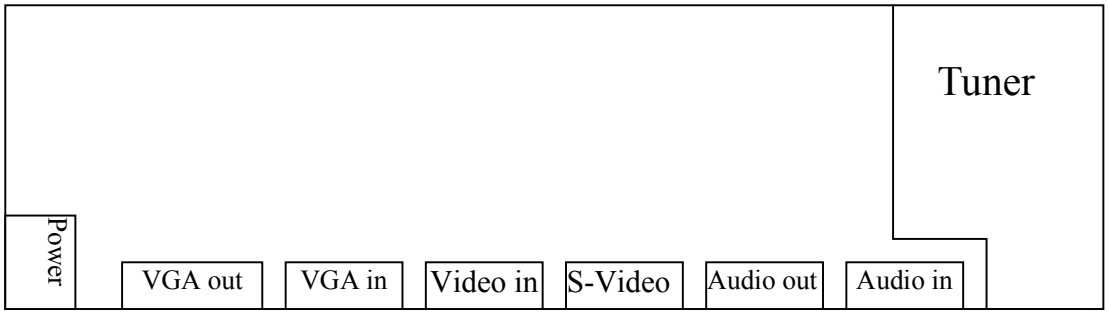
9) : Channel inc/dec (just TV Input).

10) : Volume adjusts.

11) Mute: Disable/enable audio output.
12) 0-9: Direct select channel and need not set the digit. After pressed these numbers, the new channel No. would displayed with green character, Wait 1~2 seconds, switch to new channel, the channel No. character turn to natural white. If the number selected more than the maximum of the preset channel, the channel No. will be adjusted to the maximum automatically.
13) Res: Reset key, this key corresponds with the compound key K1K2K4 in TV BOX. Press the power key could start TV BOX after reset success.
14) Recall: Return to the last selected channel while press this key.
15) SCAN: Browse all TV channels which preset while press this key.
16) MTS: Open/close "channel No./band" OSD while press this key.

©2004-2006 Copyright by AverLogic Technologies, Corp. 

## 2.6 Rear Board Interface Descriptions




1. Power Power input port 5V(2A)
2. VGA out VGA output port
3. VGA in VGA (DIN-8 connector)input port
4. Video CVBS Video input port
5. Audio out Audio output port
6. Audio in Audio input port
7. S-Video S-Video input port
8. Tuner Tuner RF input port
9. K 7 keys
10. R Remote receiver
11. L LED

©2004-2006 Copyright by AverLogic Technologies, Corp. 

# CONTACT INFORMATION

AverLogic Technologies, Corp.
URL: http://www.averlogic.com

©2004-2006 Copyright by AverLogic Technologies, Corp. 